

REMARKS

Claims 10, 12-14, 16-19, 21-23 and 25-27 are pending in the present application and are rejected. Claims 10, 12-14, 17, 19, 21-23 and 26 are herein amended. New claims 28-35 are added herein. No new matter has been added. Applicants thank Examiners Hossain and Kelley for the courtesies extended in the telephone interview of April 15, 2008. Applicants' Statement of the Substance of the Interview is incorporated herein.

Claim Objections

The Office Action objects to claims 10, 12-14, 16-19 and 21-27¹ on the apparent grounds that the subject matter of the bidirectional link is not appropriately described. The Office Action acknowledges that the specification discloses a textual description and a link. The Office Action also acknowledges that the specification discloses a bidirectional link or linking between the slide to a program and a program to a slide. However, the Office Action requests clarification as to where it is disclosed that "the textual description includes a bidirectional link." However, it is noted that this is not the language used in the claims. The claims in fact recite that a "textual description of slide components includes a description about a bidirectional link between the multiple original audio/video programs and slide components."

First, Applicants note that the language "...a description about a bidirectional link..." has been amended to recite "...a temporal description temporally describing each slide component and its corresponding original audio/video program and allowing for a bidirectional transition

between the multiple original audio/video programs and the slide components.” Thus, the objection is moot. However, in order to expedite examination, Applicants provide the following discussion of the bidirectional aspect of the claimed embodiments.

A textual description is illustrated, for example, in Figure 5C. Meanwhile, the linking scheme is illustrated, for example, in Figure 5B. In this example, the arrows “p” and “q” illustrate the bi-directional link. In this example, the slide is comprised of SONG 1_SUM, SONG 2_SUM, and SONG 3_SUM. While listening to the summary of song 2 (SONG 2_SUM), the user may decide that they wish to hear the entire song 2. Accordingly, the browser would refer to the slide summary text data, specifically to “MEDIA LOCATION: SONG 2.” This link is illustrated by arrow “p”. When playback of song 2 is complete, or when the user indicates that they wish to return to the slide, playback of the slide summary is started again from the slide described next to the slide summary at the origin of transition. See page 13, lines 6-10. Thus, in the example of Figure 5B and 5C, playback of the summary of song 3 would begin. This link is illustrated by the arrow “q”. Thus, the links represented by the arrows “p” and “q” are in opposite directions, this is a “bidirectional link.” Since it is the textual information illustrated for example in Figure 5C that allows for these transitions, Applicants respectfully submit that the specification fully discloses that the “textual description of slide components includes a description about a bidirectional link between the multiple original audio/video programs and slide components.” For similar reasons, the specification fully discloses that the “temporal description temporally describing each slide component and its corresponding original

¹ Claim 24 is cancelled and should not be included in this objection.

audio/video program and allowing for a bidirectional transition between the multiple original audio/video programs and the slide components,” as presently recited. Favorable reconsideration is respectfully requested.

Applicants’ Response to Claim Rejections under 35 U.S.C. §103

Claims 10, 12-14, 16-19, 21-23 and 25-27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Terasawa et al. (U.S. Patent No. 6,147,714) in view of Gagnon et al. (U.S. Patent No. 6,522,342).

With respect to claims 10 and 19, it is the position of the Office Action that Terasawa discloses the invention as claimed, with the exception of the textual description of the slide components including a description about a bidirectional link between the multiple original audio/video programs and the slide components. The Office Action relies on Gagnon to provide this teaching.

In one embodiment, Terasawa discloses a data stream including a plurality of single frames from different programs. The data stream containing five single frames from different programs and a title bar is illustrated in Figure 4. The data stream illustrated in Figure 4 is superimposed on a currently-viewed program. An example of a title bar alone is illustrated in Figure 5, while an example of the data stream alone, containing five single frames, is illustrated in Figure 6. An information screen is illustrated in Figure 7 which shows the single frame, the title bar, and program data such as the day and time of airing, the cast members, and a synopsis.

Program category icons, such as those illustrated in Figure 37, and channel icons, such as those illustrated in Figure 38, may be used in the data stream.

The single frame which is displayed in the data stream illustrated in Figure 4 is generated by the single-frame generating circuit 332-1. "This single frame is targeted for presenting part of a predetermined program for promotion." Column 5, lines 13-14. Additionally, this still frame may correspond to recommended programs, promotion of program providers, etc. See column 7, lines 21-27. The content of this still frame image data is described in detail at column 9, lines 41-67.

The single-frame is a pre-selected image which is a component of the electronic program data for the electronic program guide (EPG). This single frame is likely a still frame selected from all the frames in the program. However, it is unclear how a single-frame would be obtained for a live event, such as a sporting event. It would appear that a single-frame representing a live event would not be selected from all the frames in the program, since this single frame is pre-selected. Terasawa discloses that the EPG includes three components: (i) EPG1, which includes the still picture data, (ii) EPG2, which includes the text data such as title, broadcast date and time, cast and synopsis for programs in the near future, and (iii) EPG3, which includes data for programs to be aired in the distant future. The EPG data is received by the demultiplexor 24, which then stores the EPG data in the EPG area 35A of the data buffer memory 35. Column 12, line 64 to column 13, line 9; column 15, lines 14-30.

In order to obtain the data stream illustrated in Figure 4, the user presses program-table button switch (guide display operation means) 144. Accordingly, five reduced-size still frames

are illustrated in a data stream on the screen, with a cursor being present over one of the frames. The user may navigate to a desired still frame. If the user presses the select button 131 while the cursor is over the desired still frame, the tuner 21 will tune to the program which is represented by the still frame selected. On the other hand, if the user presses the information button switch 145, detailed information such as that illustrated in Figure 7 is displayed.

A more detailed embodiment of the data stream is illustrated in Figures 35, 36 and 40. The still images in the data stream may be organized by category, as in Figure 35 and 36, or by channel, as in Figure 40. In the case of Figure 35, when a data stream is brought onto the screen, initially still images from a program in each of categories B-E are illustrated.

With reference to Figure 36, a user may navigate left-to-right to select images from categories A-F, and so on. Additionally, a user may navigate up-and-down to select images from multiple programs within a single category. For instance, a user could navigate between programs 1, 2 and 3 in category B.

It is noted that Figure 35 illustrates "Future Program" being listed in category D. It is presumed that pressing the information button switch 145 while such a "Future Program" is selected would cause program information such as that illustrated in Figure 7 to be displayed. However, it is unclear what occurs if the select button 131 is pressed while such a "Future Program" is selected. It is presumed that an error message would result, since the tuner 21 would be unable to tune to a future program.

With reference to Figure 40, a similar embodiment is illustrated, where the programs are categorized by channel. When the data stream is brought onto the screen, initially still images

from the currently aired programs on channels 3-7 are displayed. The user may scroll left-to-right to view still images of currently aired programs on channels 1-7. The user may also scroll up-and-down to view still images from future programs on a desired channel.

Finally, it is noted that in some scenarios a full program guide displaying more than five still images simultaneously may be displayed. See Figure 32, which is a full program guide, as compared to Figure 33, which is a data stream. Figures 41 and 42 are also similarly comparable.

Gagnon is directed at a graphical tuning bar for a multi-program data stream. As illustrated in Figure 2A, the tuning bar 150 is used to navigate between television channels. This tuning bar 150 is contemplated to replace traditional grid-style electronic programming guides. Each position on the tuning bar 150 corresponds to a channel. In Figure 2A, the slider 372 has been tuned to the position on the tuning bar 150 which corresponds to ESPN2, on channel number 207. See also column 20, line 33 to column 21, line 4. Gagnon also discloses variations of this tuning bar 150, illustrated for example in Figure 2B. In the tuning bar 150 of Figure 2B, the channels are categorized into categories 373, 375 and 377. While the tuning bar 150 is on screen, the central video window 142 will display the incoming video/audio programming that is currently selected by the tuner 426.

The user may change the channel selection by either (1) clicking the up and down arrows at the top and bottom of the tuning bar 150, (2) dragging the slider 372 to the desired position, (3) moving the cursor to the desired position on the tuning bar and then clicking, or (4) entering alpha-numeric data on a keyboard. Moving the slider 372 to a particular location will display a "pop-up window that display to the user the channel number and call-sign of the channel

associated with that location on the channel tuning bar 150.” Column 20, lines 60-63. When a new channel is selected “the video displayed in the central video window 142, and the video title 144 are updated to correspond to the newly selected channel.” See column 21, lines 2-4. The Office Action alleges that this passage is a disclosure of a textual description including a bidirectional link between the multiple original audio/video programs and the slide components.

In the Interview of April 15, 2008, Applicants’ representative attempted to clarify which element of each of Terasawa and Gagnon were regarded as the original audio/video content and the slide components. In Terasawa, the Examiners were of the position that the original audio/video content is the broadcasted content, and that the slide components were the single frames illustrated in the alleged “slider.” Meanwhile, in Gagnon, the Examiners regarded the original audio/video content as the broadcasted content, and regarded the slide components as the channel data (e.g., In Figure 2: ESPN2-Channel 207). The Examiners appeared to acknowledge that the concept of the slide component being a segment of the audio/video content was not present in Gagnon.

As to the bidirectional link allegedly being disclosed in Gagnon, the Examiners’ position appeared to be that switching from a current broadcast channel to a first new broadcast channel and then to a second new broadcast channel was a “bidirectional” link. The Examiners appeared to attach significance to the fact that the slider in Gagnon does not disappear when the user tunes to a first new station, unlike in Terasawa. However, Applicants respectfully submit that Gagnon does not disclose or suggest the alleged “bidirectional” link or transition. Under the Examiners’

reasoning, Gagnon would disclose a “tridirectional” link if a user switches to a third new channel, a “quadridirectional” link if a user switches to a fourth new channel, etc.

Applicants respectfully submit that Gagnon does not disclose a “bidirectional” link, but rather discloses a series of unidirectional links. To further illustrate this point, Applicants herewith provide a dictionary definition of “bidirectional.” “Bidirectional” means “being directionally responsive to inputs in two *opposite* directions” (emphasis added). McGraw-Hill Dictionary of Scientific and Technical Terms, Sixth Edition. As illustrated in Figure 5, for example, the claimed embodiments include a link or transition in two *opposite* directions (i.e., arrow “p” and arrows “q”).

Even if the tuning bar 150 or slider 372 of Gagnon is considered a slide and if a textual description were included, this only would be a *unidirectional* link, not a *bidirectional* link. Gagnon only allows for a series of *unidirectional* links or transitions between the tuning bar and live video (i.e., selection of a channel in the slider and subsequent tuning to that channel). Selection of a new channel results in tuning to this new channel, and the video being displayed in the video window 142. There is no way to provide a link in the opposite direction. Rather, the user must repeatedly perform a link in the tuning bar-to-video window direction in order to change channels. In fact, since the tuning bar 150 is in fact a list of channel information, rather than audio/video components which are excerpts or reduced temporal segments of the programming in the video window 142, a video window-to-tuning bar link is not possible.

Furthermore, Applicants respectfully submit that the teachings of Gagnon are essentially duplicative of the teachings of Terasawa. In other words, both Terasawa and Gagnon disclose a

unidirectional link. In the Interview, the Examiners appeared to attach significance to the fact that the slider in Gagnon does not necessarily disappear when the user tunes to a first new station, unlike in Terasawa. However, the fact that the user does not need to press an additional button in Gagnon to view the channel slider does not render the subject matter of Gagnon a bidirectional link. In Terasawa, the link between the still frame and the video is unidirectional. Likewise, in Gagnon, the link between the position corresponding to a specific channel and the video is unidirectional.

If Terasawa and Gagnon are combined, the result would not read on the claims. Such a combination would be a system in which a user watching program A presses a button which brings up a guide of, for example, five still frames selected from broadcast programs B, C, D, E and F. The user could move the cursor to highlight, for example, program C, and could optionally bring up a description of the program (i.e., plot summary, actors, etc.). The user could then select program C by pressing a button, causing the tuner to change the channel to that which broadcasts program C. In this proposed combination, the guide would remain on screen. After tuning to program C, this guide would now consist of still-frames from broadcast programs B, D, E and F. It is unclear whether the still frame formerly occupied by a still frame of program C would now be occupied by a still frame of program A, another program, or a blank space. The user could then select another program to switch to, or could command the guide to disappear. Such a combination does not read on a bidirectional link or transition between slide components and original programs. Rather, such a combination is merely a series of *unidirectional* still-frame-to-program transitions.

At least in view of the Office Action's acknowledgement that Terasawa does not disclose a bidirectional link or transition, and Applicants' explanation herein as to why Gagnon clearly does not disclose such a bidirectional link, Applicants respectfully submit that the cited art does not disclose or suggest the embodiments as claimed. Therefore, for at least the above reasons, Applicants respectfully submit that claims 10 and 19, and all claims dependent thereon, are patentable over the cited art.

Claim Amendments and New Claims

In order to expedite examination, Applicants herein amend the claims in order to clarify the claimed subject matter, and add new claims. In amended claims 10 and 19, Applicants now recite that the slide components are each "a reduced temporal segment" of the corresponding original program. As noted above, while in Terasawa, the still frame may be regarded as a reduced temporal segment of the original broadcast program, the channel data (for example, ESPN2-Channel 207) in Gagnon is not a reduced temporal segment of the broadcast programming.

Additionally, claims 10 and 19 now recite that the textual description includes a "temporal description" which allows for a bidirectional transition. For example, as illustrated in Figure 5C, the slide summary includes a temporal description such as "MEDIA TIME: 00:00:10-00:00:20" for song 1. Neither Terasawa nor Gagnon discloses or suggests such a *temporal* description. Terasawa and Gagnon only provide for textual descriptions which describe the programming (plot summary, etc.) or are a link to command the tuner to immediately change

channels to receive an incoming broadcast. None of these are a *temporal* description which allows for a bidirectional transition. Therefore, for at least the above reasons, Applicants respectfully submit that claims 10 and 19 are patentable over the cited art.

Furthermore, Applicants herein add new claims 28 and 29. These claims more specifically recite the contents of the temporal description. The temporal description of claims 28 and 29 allows for at least two types of transitions: (i) a slide-to-original-program direction, and (ii) an original-program-to-slide direction. The claims recite that the temporal description (i) allows for a transition from each slide to the beginning of the corresponding original programming. See, for example, in Figure 5, the transition from SONG 2_SUM transitions to the beginning of SONG 2 via arrow “p.” Additionally, the claims recite that the temporal description (ii) allows for a transition from the each original program to the beginning of the slide component which is a reduced temporal segment of the next original program. See, for example, in Figure 5, the transition from SONG 2 to the beginning of SONG 3_SUM (which is a reduced temporal segment of SONG 3) via arrow “q.” In both of Terasawa and Gagnon, transition is only possible to the “live” broadcast which is currently being received. It is not possible to transition to the beginning of a program, and also is not possible to transition to a segment of a sequentially next program. Thus, Applicants respectfully submit that new claims 28 and 29 are patentable over the cited art.

Further, Applicants herein add new claims 30-33. These claims recite that the slide components are sequentially or non-sequentially playable. As illustrated, for example, in Figure 5, the user may play SONG 1_SUM, SONG 2_SUM, and SONG 3_SUM sequentially. The user

may optionally also play these songs non-sequentially. It is not possible to play the alleged slide components of Terasawa and Gagnon sequentially or non-sequentially. In Gagnon, the alleged slide components are not media, but are only listing of channel data. Thus, it is impossible to “play” this sequentially or otherwise. As for Terasawa, it is only contemplated that the single-frame images are displayed simultaneously. There is no disclosure or suggestion of “playing” these still frames, sequentially or non-sequentially. In other words, it is not contemplated to create a composite “movie” of the still frame images and to play them in any order. Thus, Applicants respectfully submit that new claims 30-33 are patentable over the cited art.

Finally, Applicants herein add new claims 34 and 35, which recite that the slide includes at least one segment from each of the multiple compressed or uncompressed original audio/video programs. This is supported at least by the embodiment of Figure 5, and the corresponding text.

For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

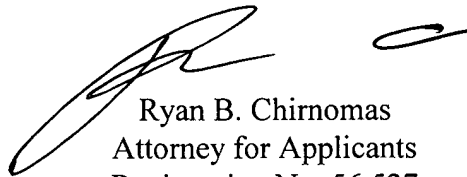
Should the Examiner deem that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants’ undersigned attorney.

Application No.: 09/863,352
Art Unit: 2623

Amendment
Attorney Docket No.: 010661

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP

A handwritten signature in black ink, appearing to read 'R. Chirnomas', is written over the printed name.

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RBC/nrp

Enclosure: Excerpt from the McGraw-Hill Dictionary of Scientific and Technical Terms,
Sixth Edition

McGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS

**Sixth
Edition**

McGraw-Hill

New York Chicago San Francisco
Lisbon London Madrid Mexico City
Milan New Delhi San Juan Seoul Singapore Sydney Toronto

biocuculline [ORG CHEM] $C_{20}H_{17}NO_6$. A convulsant alkaloid found in plants of the family Fumariaceae. { 'bi'kü·kya·lën }

biocusp [ANAT] Any of the four double-pointed premolar teeth in humans. [BIOL] Having two points or prominences. { 'bi'kəs·pəd }

bicycle [MECH ENG] A human-powered land vehicle with two wheels, one behind the other, usually propelled by the action of the rider's feet on the pedals. { 'bi'sik·əl }

bicyclic [BOT] Having or arranged in two whorls, as in petals. { 'bi'si·klík }

bicyclic compound [ORG CHEM] A compound having two rings which share a pair of bridgehead carbon atoms. { 'bi'sik·lik·käm·pənd }

bid [ENG] An estimate of costs for specified construction, equipment, or services proposed to a customer company by one or more supplier or contractor companies. { 'bid }

biddaßite See anthophyllite. { 'bä'däl·ə·tīt }

Bidder's organ [VERT ZOO] A structure in the males of some toad species that may develop into an ovary in older individuals. { 'bid·ə·z·'ör·gən }

bidentate [BIOL] Having two teeth or toothlike processes. { 'bi'den·tāt }

bidentate ligand [INORG CHEM] A chelating agent having two groups capable of attachment to a metal ion. { 'bi'den·tāt·'lig·ənd }

bidirectional [ENG] Being directionally responsive to inputs in opposite directions. { 'bi·də'rek·shən·əl }

bidirectional antenna [ELECTROMAG] An antenna that radiates or receives most of its energy in only two directions. { 'bi·də'rek·shən·əl·ən'ten·ə }

bidirectional clamping circuit [ELECTR] A clamping circuit that functions at the prescribed time irrespective of the polarity of the signal source at the time the pulses used to actuate the clamping action are applied. { 'bi·də'rek·shən·əl·klām·piŋ·sər·kət }

bidirectional clipping circuit [ELECTR] An electronic circuit that prevents transmission of the portion of an electrical signal that exceeds a prescribed maximum or minimum voltage value. { 'bi·də'rek·shən·əl·klip·iŋ·sər·kət }

bidirectional counter See forward-backward counter. { 'bi·də'rek·shən·əl·kəun·tər }

bidirectional data bus [COMPUT SCI] A channel over which data can be transmitted in either direction within a computer system. { 'bi·də'rek·shən·əl·däd·ə·bäs }

bidirectional microphone [ENG ACOUS] A microphone that responds equally well to sounds reaching it from the front and rear, corresponding to sound incidences of 0 and 180°. { 'bi·də'rek·shən·əl·mī·krə·fōn }

bidirectional parallel port [COMPUT SCI] A parallel port that can transfer data in both directions, and at speeds much greater than a standard parallel port. { 'bi·də'rek·shən·əl·par·ə·lél·'pört }

bidirectional printer [COMPUT SCI] A printer in which printing can be done in both a left-to-right and a right-to-left direction. { 'bi·də'rek·shən·əl·'print·ər }

bidirectional pulse-amplitude modulation See double-polarity pulse-amplitude modulation. { 'bi·də'rek·shən·əl·pəls·äm·plä·tūd·mäj·ə·'äl·shən }

bidirectional replication [MOL BIO] A mechanism of replication of deoxyribonucleic acid that involves two replicating forks moving in opposite directions away from the same origin. { 'bi·də'rek·shən·əl·rep·lə·käsən }

bidirectional transducer [ELECTR] A transducer capable of measuring in both positive and negative directions from a reference position. Also known as bilateral transducer. { 'bi·də'rek·shən·əl·tranz·dü·sər }

bidirectional transistor [ELECTR] A transistor that provides switching action in either direction of signal flow through a circuit; widely used in telephone switching circuits. { 'bi·də'rek·shən·əl·tran·zīs·tər }

bidirectional triode thyristor [ELECTR] A gate-controlled semiconductor switch designed for alternating-current power control. { 'bi·də'rek·shən·əl·'tri·öd·thī·rīs·tər }

bi-drop [FL MECH] A device in which two drops of different wetting liquids are juxtaposed inside a tube, resulting in spontaneous motion of the liquid and coating of the inner surface of the tube. Also known as Bico bi-drop. { 'bi·dräp }

Bieberbach conjecture [MATH] The proposition, proven in 1984, that if a function $f(z)$ is analytic and univalent in the unit

disk, and if it has the power series expansion $z + a_2z^2 + a_3z^3 + \dots$, then, for all n ($n = 2, 3, \dots$), the absolute value of a_n is equal to or less than n . { 'bē·bə·bäk·kən·jek·chər }

bieberite [MINERAL] $CoSO_4 \cdot 7H_2O$. A rose red or flesh red, monoclinic mineral consisting of cobalt sulfate heptahydrate; occurs as crusts and stalactites. { 'bē·bə·rit }

Blebrich red See scarlet red. { 'bē·brik·'red }

Bledenham identity [NUC PHYS] A relationship among the six- j symbols of Wigner. { 'bēd·ən·häm·i'den·ə·dē }

Biela Comet [ASTRON] A comet seen in 1852 at one perihelion passage; presumed to have separated into two bodies. Also known as Comet Biela. { 'bē·lä·käm·ət }

Biellids See Andromedids. { 'bē·lids }

Blenayme-Chebyshev inequality [STAT] The probability that the magnitude of the difference between the mean of the sample values of a random variable and the mean of the variable is less than st , where s is the standard deviation and t is any number greater than 1; is equal to or greater than $1 - (1/t^2)$. { 'blē·nīm·ə·chē·bi'shōf·in·i'kwäl·əd·ē }

biennial plant [BOT] A plant that requires two growing seasons to complete its life cycle. { 'bi'en·ē·əl·'plant }

Bierbaum scratch hardness test [ENG] A test for the hardness of a solid sample by microscopic measurement of the width of scratch made by a diamond point under preset pressure. { 'bir·bäum·'skrach·'hård·nəs·'test }

biface tool [DES ENG] A tool, as an ax, made from a coil flattened on both sides to form a V-shaped cutting edge. { 'bi·fäs·'tül }

bifacial [BOT] Of a leaf, having dissimilar tissues on the upper and lower surfaces. [DES ENG] Of a tool, having both sides alike. { 'bi·fä·shəl }

bifanged [ANAT] Of a tooth, having two roots. { 'bi·'fängd }

bifenox [ORG CHEM] $C_{14}H_9Cl_2NO_5$. A tan, crystalline compound with a melting point of 84–86°C; insoluble in water; used as a preemergence herbicide for weed control in soybeans, corn, and sorghum, and as a pre- and postemergence herbicide in rice and small greens. { 'bi·fēn·äks }

bifid [BIOL] Divided into two equal parts by a median cleft. { 'bi·fid }

Bifidobacterium [MICROBIO] A genus of bacteria in the family Actinomycetaceae; branched, bifurcated, club-shaped or spatulate rods forming smooth microcolonies; metabolism is saccharoclastic. { 'bi·fä·dō·bäk'tēr·ē·əm }

bifilar electromagnet oscillograph [ELECTROMAG] A writing low-frequency light-beam oscillograph usually using a moving coil with a single U-shaped turn (bifilar type). { 'bi·fī·lär·i·lek·trō·mag'nēd·ik·ä'sil·ə·gräf }

bifilar electrometer [ENG] An electrostatic voltmeter in which two conducting quartz fibers, stretched by a small weight or spring, are separated by their attraction in opposite directions toward two plate electrodes carrying the voltage to be measured. { 'bi·fī·lär·i·lek'träm·əd·ər }

bifilar micrometer See filar micrometer. { 'bi·fī·lär·mī·kräm·əd·ər }

bifilar resistor [ELEC] A resistor wound with a wire doubled back on itself to reduce the inductance. { 'bi·fī·lär·rī·zīs·tər }

bifilar suspension [ENG] The suspension of a body from two parallel threads, wires, or strips. { 'bi·fī·lär·səs·pen·shən }

bifilar transformer [ELEC] A transformer in which wires for the two windings are wound side by side to give extremely tight coupling. { 'bi·fī·lär·tranz'fōr·mər }

bifilar winding [ELEC] A winding consisting of two insulated wires, side by side, with currents traveling through them in opposite directions. { 'bi·fī·lär·'wīn·dīŋ }

biflabellate [INV ZOO] The shape of certain insect antennae, characterized by short joints with long, flattened processes on opposite sides. { 'bi·flä·bel·ət }

biflagellate [BIOL] Having two flagella. { 'bi·flaj·ə·lät }

bifluoride [INORG CHEM] An acid fluoride whose formula has the form MHF_2 ; an example is sodium bifluoride, $NaHF_2$. { 'bi·flūr·id }

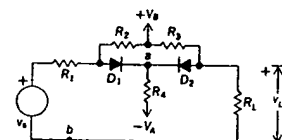
bifocal lens [OPTICS] 1. A lens with two parts having different focal lengths. 2. In particular, an eyeglass lens having one part that corrects for distant vision and one part for near vision. { 'bi·fō·kəl·'lens }

bifoliate [BOT] Two-leaved. { 'bi·fōl·ē·ət }

biforate [BIOL] Having two perforations. { 'bi·fä·rät }

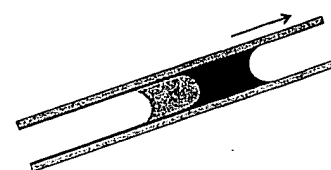
bifunctional catalyst [CHEM] A catalytic substance that

BIDIRECTIONAL CLIPPING CIRCUIT



Circuit diagram of bidirectional clipping obtained by connecting two diodes.

BI-DROP



Self-motion of the Bico bi-drop inside a tube.